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Economic Intelligence Report

**THE GROSS NATIONAL PRODUCT
OF COMMUNIST CHINA
1952-60**



CIA/RR ER 61-41

September 1961

**CENTRAL INTELLIGENCE AGENCY
Office of Research and Reports**

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CONTENTS

	<u>Page</u>
The Gross National Product of Communist China, 1952-60	1

Appendixes

Appendix A. Statistical Tables	5
Appendix B. Methodology for Estimating the Gross National Product of Communist China	17
1. Introduction	17
2. Basic National Accounts, 1952 and 1957-59 . .	18
3. Gross National Product, by Sector of Origin, 1952-60	35
4. Special Problems Relating to the Estimates of GNP	39

50X1

Tables

1. Communist China: National Income and Product Account, 1952 and 1957-59	7
2. Communist China: Personal Income and Expenditures Ac- count, 1952 and 1957-59	8
3. Communist China: Government Receipts and Expenditures Ac- count, 1952 and 1957-59	9
4. Communist China: Foreign Transactions Account, 1952 and 1957-59	10
5. Communist China: Gross Saving and Investment Account, 1952 and 1957-59	11
6. Communist China: Gross National Product, by Sector of Origin, 1952-60	12

C-O-N-F-I-D-E-N-T-I-A-L

C-O-N-F-I-D-E-N-T-I-A-L

	<u>Page</u>
7. Communist China: Per Capita Gross National Product, 1952-60	13
8. Communist China: Production of Major Agricultural Commodities, 1952 and 1957-60	14
9. Communist China: Production of Major Industrial Commodities, 1952-60	15
10. Communist China: Calculation of Changes in Inventories in Trade, Selected Years, 1951-59 . .	33

Charts

	<u>Following Page</u>
Figure 1. Communist China: Total and Per Capita GNP, 1952-60	2
Figure 2. Communist China: Indexes of Growth of GNP and of Major Economic Sectors, 1952-60	2
Figure 3. Communist China: Comparison of Increases in Official National Income Statistics and Estimates of GNP, 1952-59	4

C-O-N-F-I-D-E-N-T-I-A-L

THE GROSS NATIONAL PRODUCT OF COMMUNIST CHINA*
1952-60

The Chinese Communist economy has expanded at a rapid rate since 1952, although not so rapidly as claimed in official Chinese statistics. Gross national product (GNP), valued in constant (1957) market prices, is estimated to have been 79.2 billion yuan in 1952 and 151.1 billion yuan in 1960,** an average annual increase of 8.4 percent*** for the 8 years. Per capita GNP increased at an average annual rate of 5.9 percent during this period.† The trend in total and per capita GNP, 1952-60, is shown in the chart, Figure 1.††

In spite of remarkable economic achievements since 1952, per capita GNP remains small, and Communist China is still far behind Japan, the USSR, and industrialized nations of the West in terms of quality and diversity of industrial production and mastery of modern technology. The economic program was seriously disrupted in 1960 by the second consecutive year of poor harvest, by the sudden withdrawal of Soviet technicians, and by the accumulated problems in planning and organization which stemmed from the excesses of the "leap forward" policy.†††

The rapid growth of the modern sectors of the economy -- industry, construction, and transportation and communications -- and the contrasting slow and erratic expansion of agriculture are depicted in the chart, Figure 2.†† Industrial production expanded at an average annual rate of almost 20 percent during 1952-60, and the expansion of heavy industrial

* The estimates and conclusions in this report represent the best judgment of this Office as of 1 August 1961.

** For estimates of GNP in constant (1957) market prices, see Tables 6 and 7, Appendix A, pp. 12 and 13, respectively, below. The figure for 1960 is a preliminary estimate. Based on a comparison of US and Chinese Communist prices, the preliminary estimate of GNP in 1960 is roughly equivalent to US \$86 billion. (All dollar values in this report are in terms of 1960 US dollars.)

*** Measured in terms of the US price structure, the increases in GNP and industrial production achieved during 1952-60, although still impressive, would be significantly lower than those shown by valuation in yuan.

† Per capita GNP in 1960 was roughly equivalent to 1960 US \$125, based on a comparison of US and Chinese Communist prices.

†† Following p. 2.

††† The term leap forward as used in this report refers to the regime's policy, instituted in 1958 and carried over into 1959 and early 1960 in milder form, of working men and machines at maximum speed with only secondary concern for the quality and balanced proportioning of output.

C-O-N-F-I-D-E-N-T-I-A-L

C-O-N-F-I-D-E-N-T-I-A-L

production was even faster. The industrial sector constituted almost 27 percent* of GNP (at factor cost) in 1960 compared with 12 percent in 1952. The agricultural sector accounted for 35 percent of GNP in 1960 compared with 58 percent in 1952.* Production in the agricultural sector in 1960 was only about 11 percent above the level of 1952 and, on a per capita basis, about 8 percent below the level of 1952.

A principal explanation of the rapid growth of the GNP of Communist China lies in the allocation of a large and increasing share of GNP to investment. The expansion of the share of investment in GNP and the offsetting contraction of the share of consumption are shown in the following tabulation of the distribution of GNP, by end use, in 1952 and 1957-59:

End Use	Percent			
	1952	1957	1958	1959
Government purchases of goods and services	10.9	10.3	8.8	9.4
Net exports of goods and services	-0.4	0.8	0.4	0.5
Gross domestic investment	15.1	20.9	29.5	32.6
Personal consumption expenditures	74.4	68.0	61.3	57.5
Gross national product (in current domestic market prices)	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

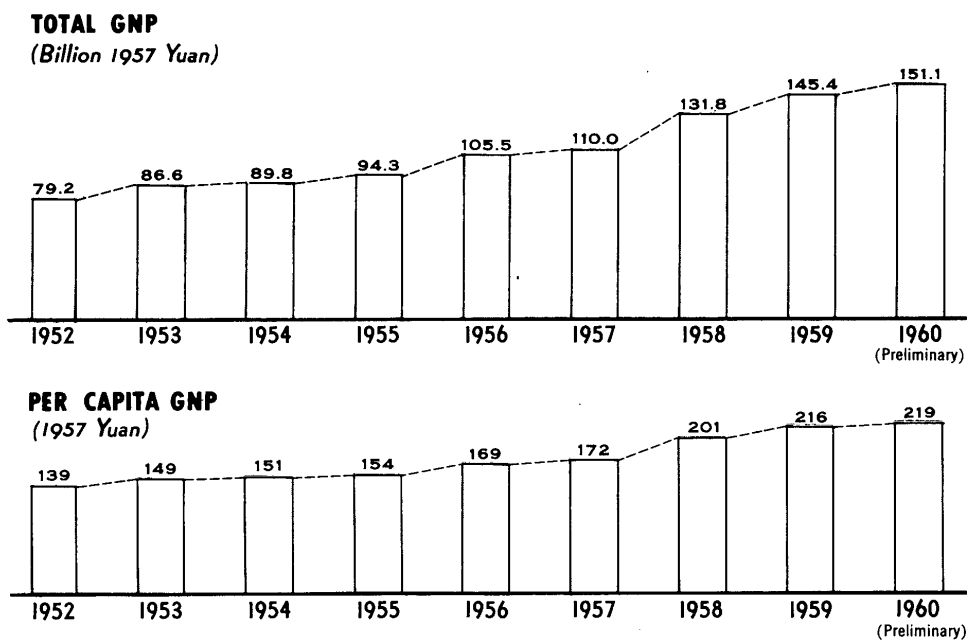
This rapidly increasing investment has been directed mainly toward heavy industry rather than toward light industry, agriculture, housing, and consumer services. The share of GNP allocated to government uses declined during this period because military expenditures declined from about 6.5 percent of GNP in the Korean War year of 1952 to about 4.9 percent of GNP in 1959. Consumption and government uses, although declining as a proportion of GNP, have increased in absolute terms during these years. Net imports of goods and services were equivalent to 0.4 percent of GNP in 1952, representing Soviet credits used to import military and industrial goods. By 1957 the Soviet credits were virtually exhausted, and net exports in 1957-59 were needed to repay the Soviet debt and to finance China's foreign aid program.

* Measured in terms of the US price structure, the agricultural contribution to GNP would be somewhat larger and the industrial contribution somewhat smaller than that shown by valuation in yuan.

Figure 1

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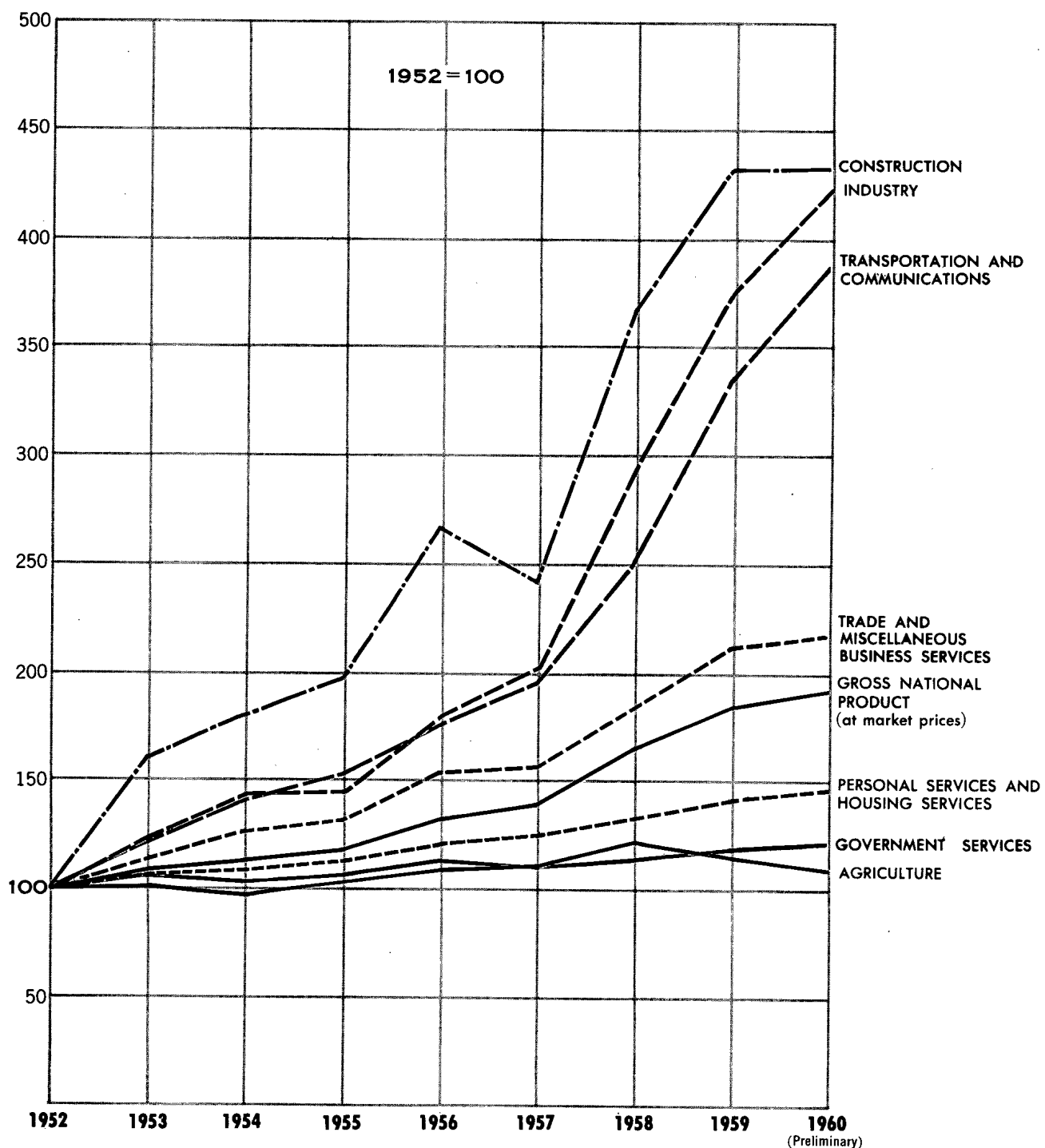
COMMUNIST CHINA: Total and Per Capita GNP, 1952-60



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Figure 2 50X1

COMMUNIST CHINA Indexes of Growth of GNP and of Major Economic Sectors, 1952-60



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Chinese Communist success in the basic policy of restricting increases in consumption while rapidly expanding investment has in large part resulted from the extension and refinement of government control over manpower and materials. The rapid rise in the proportion of GNP originating in state enterprises -- from 8.3 percent in 1952 to 24.7 percent in 1959 -- reflects the primary method of extending state control over the economy. Other ways in which state control has been progressively extended under the Communist regime are the following:

(1) the allocation of major commodities according to the state plan, (2) the rationing of grain and cotton cloth to consumers, (3) the regulation of prices, (4) the control over credit through the state banking system and credit cooperatives, and (5) the collectivization of agriculture.

Economic growth in Communist China has not been as great as claimed. The chart, Figure 3,* presents a comparison of Chinese claims of increases in national income and estimates (used in this report) of increases in GNP for 1952-59. Conceptual differences between the Chinese measurement of national income and the estimates of GNP in this report partially explain the differing rates of economic growth. The Chinese measurement of national income, for example, excludes most if not all of the income from personal services, housing, and government services. Income originated by these services has expanded slowly since 1952 (see Figure 2**). The major factor explaining these differing rates of growth, however, is the assessment of progress of agricultural production. The Chinese have claimed that the gross value of agricultural production in 1959 was more than 80 percent higher than in 1952. The estimates of the gross value of agricultural production used in this report indicate that the increase was only about 21 percent.***

Numerical estimates of the GNP of Communist China and of the components of GNP are presented in Tables 1 through 7, Appendix A.† The method used to estimate the GNP is summarized in Appendix B.

* Following p. 4.

** Following p. 2, above.

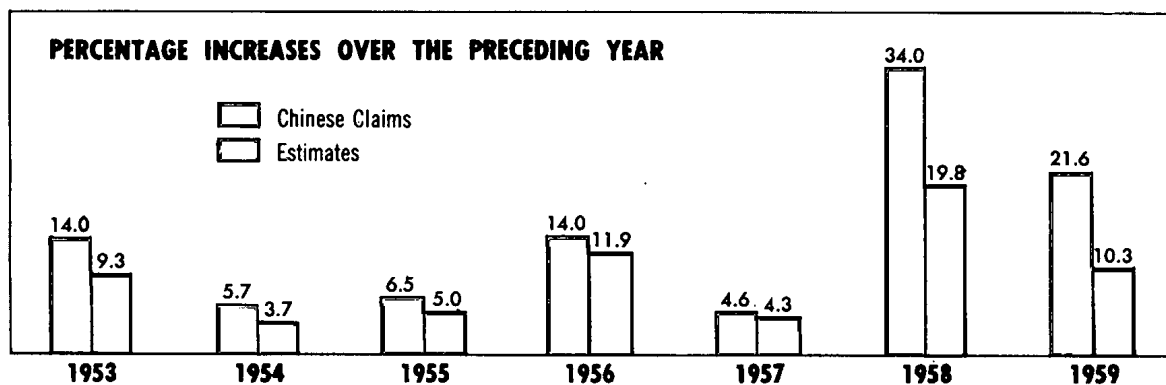
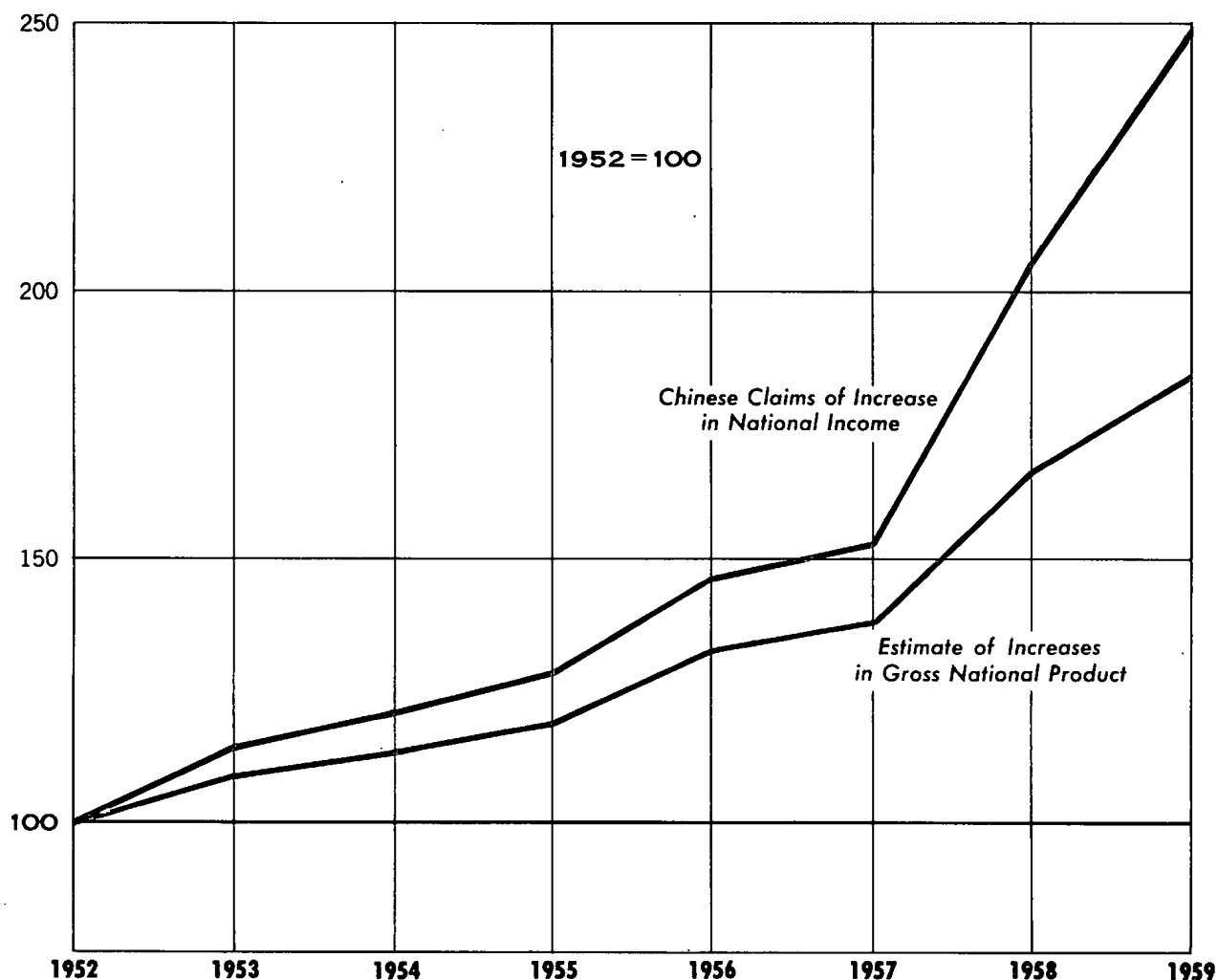
*** It should be noted that value added in agriculture has increased only about 16 percent between 1952 and 1959 compared with the 21-percent increase in the gross value of agricultural production.

† Pp. 7 through 13, below.

Figure 3 50X1

COMMUNIST CHINA

Comparison of Increases in Official National Income Statistics and Estimates of GNP, 1952-59



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APPENDIX A

STATISTICAL TABLES

Tables 1 through 5 in this appendix* are modeled after the so-called "five-account system" of the US Department of Commerce.** The various segments of economic activity in Communist China are aggregated to give the following accounts: (1) gross national product (GNP), (2) personal income and expenditures, (3) government receipts and expenditures, (4) foreign transactions, and (5) saving and investment. Each segment of economic activity appears in two places, the system operating according to the fundamental principle of double-entry bookkeeping.

Table 6*** gives GNP by sector of origin, in constant 1957 prices. Table 7† combines these estimates of GNP with estimates of population to give estimates of GNP per capita. Tables 8 and 9†† present estimates of production of major agricultural and industrial commodities, respectively.

* Pp. 7 through 11, below.

*** P. 12, below.

† P. 13, below.

†† Pp. 14 and 15, respectively, below.

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C-O-N-F-I-D-E-N-T-I-A-L

C-O-N-F-I-D-E-N-T-I-A-L

Table 1

Communist China: National Income and Product Account
1952 and 1957-59

Billion Current Yuan

Item Number		1952	1957	1958	1959
1	Compensation of employees (see Table 2, item 10)	9.3	18.8	21.2	25.4
2	Agricultural income	39.1	47.5	52.9	51.5
3	Agricultural taxes (see Table 3, item 9)	2.9	3.4	3.7	3.7
4	Agricultural income (after taxes) (see Table 2, item 16)	36.2	44.1	49.2	47.8
5	Income of nonstate nonagricultural enterprises	7.6	10.4	11.0	9.3
6	Income taxes (see Table 3, item 11)	0.8	1.8	1.4	0
7	Income (after taxes) (see Table 2, item 17)	6.8	8.6	9.6	9.3
8	Income of state enterprises	6.1	15.4	24.9	37.2
9	Dividends to former owners of private enterprises (see Table 2, item 15)	0	0.1	0.1	0.1
10	Undistributed (to persons) income (see Table 5, item 7)	6.1	15.3	24.8	37.1
11	Rental income and personal service income (see Table 2, item 18)	5.0	7.1	7.6	8.3
12	Indirect taxes (see Table 3, item 12)	6.3	10.7	14.1	17.2
13	Statistical discrepancy (see Table 5, item 14)	0.6	1.3	1.6	1.5
	Gross national product	<u>74.0</u>	<u>111.2</u>	<u>133.3</u>	<u>150.4</u>
14	Personal consumption expenditures (see Table 2, item 1)	55.0	75.7	81.8	86.6
15	Gross domestic investment (see Table 5, item 1)	11.2	23.2	39.3	49.0
16	Net exports of goods and services	-0.3	0.9	0.5	0.7
17	Exports (see Table 4, item 1)	3.2	5.8	6.8	7.9
18	Imports (see Table 4, item 2)	3.5	4.9	6.3	7.2
19	Government purchases of goods and services (see Table 3, item 1)	8.1	11.4	11.7	14.1
	Gross national product	<u>74.0</u>	<u>111.2</u>	<u>133.3</u>	<u>150.4</u>

C-O-N-F-I-D-E-N-T-I-A-L

Table 2
Communist China: Personal Income and Expenditures Account
1952 and 1957-59

		Billion Current Yuan			
Item Number		1952	1957	1958	1959
1	Personal consumption expenditures (see Table 1, item 14)	55.0	75.7	81.8	86.6
2	Farm home consumption-in-kind	23.9	26.8	29.1	26.2
3	Retail sales to consumers	24.6	40.6	43.8	50.7
4	Wages-in-kind of government employees	0.7	0	0	0
5	Agricultural consumer services and house rent	2.4	2.8	3.0	3.1
6	Nonagricultural consumer services	1.9	3.6	3.9	4.5
7	Nonagricultural house rent	1.5	1.9	2.0	2.1
8	Personal tax and nontax payments (see Table 3, item 10)	0.4	0.4	0.3	0.4
9	Personal saving (see Table 5, item 13)	2.5	3.7	6.2	6.1
	Personal expenditures and saving	<u>57.2</u>	<u>79.8</u>	<u>88.3</u>	<u>93.1</u>
10	Compensation of employees (see Table 1, item 1)	9.3	18.8	21.2	25.4
11	Workers and salaried employees				
12	Wages and salaries	7.4	15.3	17.6	21.5
13	Supplements	0.5	1.6	1.6	1.8
14	Military, including supporting, personnel	1.4	1.9	2.0	2.1
15	Dividends to former owners of private enterprises (see Table 1, item 9)	0	0.1	0.1	0.1
16	Agricultural income (after taxes) (see Table 1, item 4)	36.2	44.1	49.2	47.8
17	Income (after taxes) from nonstate nonagricultural enterprises (see Table 1, item 7)	6.8	8.6	9.6	9.3
18	Rental income and personal service income (see Table 1, item 11)	5.0	7.1	7.6	8.3
19	Agricultural consumer services and house rent	2.4	2.8	3.0	3.1
20	Nonagricultural personal services	1.4	2.7	2.9	3.4
21	Nonagricultural house rent	1.2	1.6	1.7	1.8
22	Government transfer payments (see Table 3, item 5)	0.6	1.0	0.5	2.1
23	Personal interest income (see Table 3, item 6)	<u>0</u>	0.1	0.1	0.1
	Personal income	<u>57.2</u>	<u>79.8</u>	<u>88.3</u>	<u>93.1</u>

a. Less than 50 million yuan.

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Table 3

Communist China: Government Receipts and Expenditures Account
1952 and 1957-59

		Billion Current Yuan			
Item Number		1952	1957	1958	1959
1	Purchases of goods and services (see Table 1, item 19)	8.1	11.4	11.7	14.1
2	Military	4.8	6.3	6.0	7.3
3	Health and education	1.3	2.8	3.2	3.8
4	Administration	2.0	2.3	2.5	3.0
5	Transfer payments (see Table 2, item 22)	0.6	1.0	0.5	2.1
6	Interest paid to persons (see Table 2, item 23)	a/	0.1	0.1	0.1
7	Interest paid to foreign governments (see Table 4, item 3)	a/	0.1	0.1	a/
8	Surplus on income and product account (see Table 5, item 12)	1.7	3.7	7.1	5.0
	Government expenditures and surplus	<u>10.4</u>	<u>16.3</u>	<u>19.5</u>	<u>21.3</u>
9	Agricultural taxes (see Table 1, item 3)	2.9	3.4	3.7	3.7
10	Personal tax and nontax receipts (see Table 2, item 8)	0.4	0.4	0.3	0.4
11	Income taxes from nonstate nonagricultural enterprises (see Table 1, item 6)	0.8	1.8	1.4	0
12	Indirect taxes (see Table 1, item 12)	6.3	10.7	14.1	17.2
	Government receipts	<u>10.4</u>	<u>16.3</u>	<u>19.5</u>	<u>21.3</u>

a. Less than 50 million yuan.

C-O-N-F-I-D-E-N-T-I-A-L

Table 4

Communist China: Foreign Transactions Account
1952 and 1957-59

		Billion Current Yuan			
Item Number		<u>1952</u>	<u>1957</u>	<u>1958</u>	<u>1959</u>
1	Exports of goods and services (see Table 1, item 17)	3.2	5.8	6.8	7.9
	Receipts from abroad	<u>3.2</u>	<u>5.8</u>	<u>6.8</u>	<u>7.9</u>
2	Imports of goods and services (see Table 1, item 18)	3.5	4.9	6.3	7.2
3	Interest paid to foreign governments (see Table 3, item 7)	<u>a/</u>	0.1	0.1	<u>a/</u>
4	Net foreign investment (see Table 5, item 6)	-0.3	0.8	0.4	0.7
	Payments abroad	<u>3.2</u>	<u>5.8</u>	<u>6.8</u>	<u>7.9</u>

a. Less than 50 million yuan.

C-O-N-F-I-D-E-N-T-I-A-L

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Table 5

Communist China: Gross Saving and Investment Account
1952 and 1957-59

		Billion Current Yuan			
Item Number		1952	1957	1958	1959
1	Gross domestic investment (see Table 1, item 15)	11.2	23.2	39.3	49.0
2	"Peasant" investment	1.3	2.1	5.6	6.3
3	Budgeted investment	5.0	13.8	24.0	29.3
4	Extrabudgetary investment	1.0	2.0	5.3	5.0
5	Changes in inventories	3.9	5.3	4.4	8.4
6	Net foreign investment (see Table 4, item 4)	-0.3	0.8	0.4	0.7
	Gross investment	<u>10.9</u>	<u>24.0</u>	<u>39.7</u>	<u>49.7</u>
7	Undistributed (to persons) income of state enterprises (see Table 1, item 10)	6.1	15.3	24.8	37.1
8	Remitted to the state treasury	5.6	14.0	21.9	33.3
9	Retained by central government ministries, local governments, and enterprises	0.5	1.3	2.9	3.8
10	Major repair funds	0.4	1.0	1.3	1.6
11	Other funds	0.1	0.3	1.6	2.2
12	Government surplus on income and product account (see Table 3, item 8)	1.7	3.7	7.1	5.0
13	Personal saving (see Table 2, item 9)	2.5	3.7	6.2	6.1
14	Statistical discrepancy (see Table 1, item 13)	0.6	1.3	1.6	1.5
	Gross saving and statistical discrepancy	<u>10.9</u>	<u>24.0</u>	<u>39.7</u>	<u>49.7</u>

C-O-N-F-I-D-E-N-T-I-A-L

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Table 6

Communist China: Gross National Product, by Sector of Origin
1952-60

Economic Sector	Billion 1957 Yuan								
	1952	1953	1954	1955	1956	1957	1958	1959	1960 ^{a/}
Agriculture	42.1	42.6	41.2	44.2	46.3	47.5	51.7	48.7	46.7
Industry	8.6	10.7	12.5	12.6	15.6	17.6	25.6	32.6	36.5
Construction	1.7	2.8	3.1	3.4	4.6	4.2	6.3	7.5	7.5
Transportation and communications	3.7	4.5	5.3	5.6	6.6	7.3	9.3	12.4	14.4
Trade and miscellaneous business services	6.3	7.2	7.9	8.3	9.7	9.9	11.6	13.3	13.6
Personal services and housing services	5.6	6.1	6.3	6.4	6.9	7.1	7.5	8.0	8.2
Government services	5.0	5.3	5.2	5.4	5.8	5.7	5.8	6.0	6.2
Gross national product (at factor cost)	<u>73.0</u>	<u>79.2</u>	<u>81.5</u>	<u>85.9</u>	<u>95.5</u>	<u>99.3</u>	<u>117.8</u>	<u>128.5</u>	<u>133.1</u>
Indirect taxes	<u>6.2</u>	<u>7.4</u>	<u>8.3</u>	<u>8.4</u>	<u>10.0</u>	<u>10.7</u>	<u>14.0</u>	<u>16.9</u>	<u>18.0</u>
Gross national product (at market prices)	<u>79.2</u>	<u>86.6</u>	<u>89.8</u>	<u>94.3</u>	<u>105.5</u>	<u>110.0</u> ^{b/}	<u>131.8</u>	<u>145.4</u>	<u>151.1</u>
Index of gross national product									
Previous year = 100		109	104	105	112	104	120	110	104
1952 = 100	100	109	113	119	133	139	166	184	191

a. Preliminary estimates -- no general economic report covering 1960 has been issued by the Chinese Communist government.

b. This gross national product total for 1957 is 1.2 billion yuan lower than the gross national product total in Table 1 (p. 7, above) because the statistical discrepancy has not been included. The estimates for the years other than 1957 are derived from the figures for 1957 and are in 1957 prices; consequently, there is no problem of a statistical discrepancy for these years.

- 12 -

C-O-N-F-I-D-E-N-T-I-A-L

C-O-N-F-I-D-E-N-T-I-A-L

Table 7

Communist China: Per Capita Gross National Product
1952-60

	<u>1952</u>	<u>1953</u>	<u>1954</u>	<u>1955</u>	<u>1956</u>	<u>1957</u>	<u>1958</u>	<u>1959</u>	<u>1960</u> ^{a/}
Gross national product (billion 1957 yuan)	79.2	86.6	89.8	94.3	105.5	110.0	131.8	145.4	151.1
Population (million persons at midyear)	570	583	596	611	626	641	657	674	689
Per capita gross national product (1957 yuan)	139	149	151	154	169	172	201	216	219
Index of per capita gross national product (1952 = 100)	100	107	109	111	122	124	145	155	158

a. Preliminary estimates -- no general economic report covering 1960 has been issued by the Chinese Communist government.

C-O-N-F-I-D-E-N-T-I-A-L

Table 8

Communist China: Production of Major Agricultural Commodities
1952 and 1957-60

Commodity	Million Metric Tons				
	1952	1957	1958	1959	1960 <u>a/</u>
Rice	75	87	99	90	90
Wheat	22	24	29	28	20
Other grains	53	53	51	46	45
Tubers (grain equivalent)	18	22	33	26	30
Total grains	<u>168</u>	<u>185</u> <u>b/</u>	<u>212</u>	<u>190</u>	<u>180 to 190</u>
Soybeans	9.5	10.0	9.8	9.5	9.0 to 9.5
Peanuts	2.3	2.6	2.8	2.3	2.1
Rapeseed	0.93	0.89	1.10	0.95	1.03
Sesame seed	0.52	0.31	0.37	0.38	0.35
Cotton (ginned)	1.3	1.6	2.1	1.8	1.8
Tobacco (flue-cured)	0.22	0.26	0.38	0.42	0.43
Vegetables	45	62	56	70	65
Meat <u>c/</u>	5.1	5.6	5.8	5.6	5.2

a. Preliminary estimates -- no general economic report covering 1960 has been issued by the Chinese Communist government.

b. Because of rounding, components do not add to the total shown.

c. Pork, beef (including buffalo), mutton and goat, and poultry.

C-O-N-F-I-D-E-N-T-I-A-L

C-O-N-F-I-D-E-N-T-I-A-L

Table 9

Communist China: Production of Major Industrial Commodities
1952-60

Commodity	Unit	1952	1953	1954	1955	1956	1957	1958	1959	1960 ^{a/}
Crude steel	Million metric tons	1.35	1.77	2.22	2.85	4.46	5.35	8.0	13.4	18.4
Coal	Million metric tons of standard fuel equivalents ^{b/}	61.7	64.7	77.7	91.3	102.5	121.4	213.3	274.5	296.0
Crude oil	Million metric tons	0.44	0.62	0.79	0.97	1.16	1.46	2.26	3.7	4.6
Electric power	Billion kilowatt-hours	7.26	9.2	11.0	12.3	16.6	19.3	27.5	41.5	57
Machine tools ^{c/}	Thousand	13.7	20.5	15.9	13.7	25.9	28.3	30	33	38
Trucks	Thousand	0	0	0	0	1.6	7.5	15.5	19.4	16.9
Tractors	Thousand	0	0	0	0	0	0	1	5	10
Cement	Million metric tons	2.86	3.88	4.60	4.50	6.39	6.86	9.30	12.27	14
Timber	Million cubic meters	11.2	17.5	22.2	20.9	20.8	27.9	35.0	41.2	43
Paper (machine-made)	Million metric tons	0.37	0.43	0.55	0.59	0.74	0.91	1.22	1.70	1.8
Chemical fertilizer ^{d/}	Thousand metric tons	39	53	71	85	132	159	266	408	500
Sulfuric acid	Thousand metric tons	190	260	344	375	517	632	740	1,050	1,360
Cotton cloth ^{e/}	Billion linear meters	3.83	4.69	5.23	4.36	5.77	5.05	5.7	7.5	6.5
Cigarettes	Million cases ^{f/}	2.6	3.6	3.7	3.6	3.9	4.5	4.8	5.5	5.5
Salt	Million metric tons	4.9	3.6	4.9	7.5	4.9	8.3	10.4	11.0	14.0

a. Preliminary estimates -- no general economic report covering 1960 has been issued by the Chinese Communist government.

b. Standard fuel has a calorific value of 7,000 kilocalories per kilogram.

c. Machine tools that approximate internationally accepted classifications for metalcutting machine tools.

d. Chemical nutrient equivalents based on amounts of nitrogen, phosphoric anhydride, and potassium oxide.

e. Including machine-made and handicraft production.

f. One case contains 50,000 cigarettes.

C-O-N-F-I-D-E-N-T-I-A-L

C-O-N-F-I-D-E-N-T-I-A-L

APPENDIX B

METHODOLOGY FOR ESTIMATING THE GROSS NATIONAL PRODUCT
OF COMMUNIST CHINA

1. Introduction

No single measure is adequate to assess the economic capability of a country: the choice of a measure depends on the purpose for which it is needed -- for example, whether for an assessment of military strength, consumer welfare, or economic growth. The closest approach to a general measure of the over-all economic strength of a country is an estimate of the value of all the final (as opposed to intermediate) goods and services produced during a specified period, usually 1 year. This measure of total output is called gross national product (GNP). GNP is estimated through the construction of national accounts for the economy, in which each segment of economic activity -- such as agricultural production -- is defined, measured, and aggregated.

The system of national accounts used in this report, as noted previously, is modeled after the five-account system of the US Department of Commerce. Every major transaction appears twice -- compensation of employees, for example, appears in the National Income and Product Account and in the Personal Income and Expenditures Account. The methodology used to estimate a given transaction, however, is discussed only once -- the method used to estimate compensation of employees, for example, is discussed under the Personal Income and Expenditures Account, whereas under the National Income and Product Account reference is made to the discussion under the Personal Account.

The double-entry feature provides a check on the accuracy of individual estimates and on the consistency of the relationships among the five accounts. Wherever possible, the entries were estimated independently. Where limitations of the data did not permit independent estimation of the entries -- for example, in the case of personal saving, government surplus on income and product account, and net foreign investment -- it was necessary to derive the total expenditures of an account from its total income. In these instances the dependence of one side of the account on the other explains the absence of a statistical discrepancy.

The precision implied by the set of accounts fails to disclose the ranges of uncertainty that surround particular estimates within the accounts. The conceptual frame of reference used differs from that employed by the State Statistical Bureau of Communist China in preparing

C-O-N-F-I-D-E-N-T-I-A-L

C-O-N-F-I-D-E-N-T-I-A-L

official Chinese data. For this reason, it has been necessary in many instances to adjust the available official data to fit the system of national accounts used in this report. Furthermore, on occasion it has been necessary to derive particular estimates as residuals from larger reported totals. Both of these operations have been hampered by the lack of detailed data and of full knowledge of what is included in the reported totals. In addition, because official data exaggerated claims for increases in production of grain in 1952-54 and production of grain and other agricultural products in 1958-59, estimates by Western analysts were employed in these instances. In the earlier period the exaggeration may have resulted from an inadequate system of statistical collection and reporting, which resulted in an understatement of production in the base year. The gross overstatement of actual agricultural production in 1958-59, however, was clearly the result of the political influences of the "leap forward." As a result, although the detailed data presented in the accounts are believed to adequately reflect relative orders of magnitude, the individual entries should be viewed as having varying degrees of uncertainty attached to them.

Lack of data prevented the estimation of the distribution of GNP, in current prices, by sector of origin for the years after 1957. Data also are insufficient to provide adequate price deflators for the major end-use estimates in current prices. For the purpose of indicating trends in GNP in constant prices, GNP in 1957 prices (see Table 6*) has been calculated on the basis of an estimate of GNP, by sector of origin, in 1957 and of indexes of production in each of the economic sectors for the years 1952-60.

2. Basic National Accounts, 1952 and 1957-59

a. National Income and Product Account (Table 1**)

(1) Compensation of Employees

(See b, (10), p. 26, below.)

(2) Agricultural Income

Agricultural income as treated in this report includes the value added*** by agriculture, forestry, animal husbandry, agricultural side-occupations, fishery (exclusive of fishing by mechanical means),

* Appendix A, p. 12, above.

** Appendix A, p. 7, above.

*** The value added in any economic sector is the value of production in that sector minus the value of raw materials and intermediate products bought from other sectors.

C-O-N-F-I-D-E-N-T-I-A-L

handicrafts in production of goods that were produced and consumed on the farm, and preliminary processing of agricultural products. This entry was calculated by subtracting the value of seed and feed grains, chemical fertilizer, and other products used up in production from the gross value of agricultural production.

The Chinese Communists have reported the gross value of agricultural production in 1957 to be 64.87 billion yuan in 1957 prices. 2/ Official data on the gross value in 1957 of production of grain, industrial crops, vegetables and other crops, and livestock and livestock products have been found to be reasonably consistent with estimates of the gross value of these commodity groups derived by aggregating the production figures for rice, wheat, hogs, and other agricultural products on the basis of sample farm sale prices in 1957 for these products.

The gross value of agricultural production in 1952 and 1958-59, in 1957 prices, was calculated by summing the gross value of production of grain, industrial crops, livestock and livestock products, and the other commodity groups within agriculture. The gross value of production of grain in 1952 and 1958-59 -- 39 percent of the gross value of agricultural production in 1957 -- was calculated by multiplying the gross value of production of grain in 1957 by an index of production of rice, wheat, other food grains, and soybeans in 1952 and 1958-59 (1957 production equaling 100). This index of production of grain was computed by taking quantity relatives* and weighting by the farm sale price of each product in 1957. The gross value of production of the other commodity groups within agriculture was calculated by the same method used for grain. The value of products used up in production was calculated on the basis of (a) data on retail sales of production materials to agriculture, (b) estimates of seed and feed grain, and (c) Chinese Communist claims of gross value and net value of agricultural production in 1955 and 1956.

Agricultural income in 1952 and 1958-59, in 1957 prices, was converted to current prices on the basis of an index of farm sale prices. 3/

(3) Agricultural Taxes

This item covers agricultural taxes, which are included in the state budget, and local surtaxes and levies for village administration, which are not included in the state budget. Agricultural taxes included in the state budget in 1952 and 1957-59 and local surtaxes and levies for village administration in 1957-59 have been reported by the Chinese Communists. Estimates of local surtaxes and levies for village

* For estimates of production of major agricultural products in 1952 and 1957-60, see Table 8, Appendix A, p. 14, above.

C-O-N-F-I-D-E-N-T-I-A-L

C-O-N-F-I-D-E-N-T-I-A-L

administration in 1952 and 1959 can be derived from other official data. 4/

(4) Agricultural Income (After Taxes)

This entry is the residual after agricultural taxes are subtracted from agricultural income.

(5) Income of Nonstate Nonagricultural Enterprises

This item includes income originated by (a) state-private, cooperative, and private industrial and commercial enterprises; (b) native transportation and handling services; (c) peddlers; and (d) construction activities of farmers. Rough estimates of income originated by these enterprises are as follows:

	<u>Billion Current Yuan</u>			
	<u>1952</u>	<u>1957</u>	<u>1958</u>	<u>1959</u>
State-private, cooperative (except handicraft cooperatives), and private enterprises	3.27	2.80	2.15	0.10
Nonstate handicrafts (handicraft cooperatives and independent handicraftsmen)	1.70	2.87	3.02	2.46
Native transportation and handling services	1.73	3.21	3.71	4.32
Peddlers	0.39	0.43	0.43	0.43
Construction activities by farmers	0.46	1.04	1.72	1.97
Total	<u>7.55</u>	<u>10.35</u>	<u>11.03</u>	<u>9.28</u>

Income originated by state-private, cooperative (except handicraft cooperatives), and private enterprises was estimated as follows: (a) for 1952, on the basis of an estimate of income taxes paid by these enterprises and a Chinese Communist statement of the ratio of income taxes to income of these enterprises; (b) for 1957, on the assumption that the ratio of profits and depreciation reserves to the gross value of production of these enterprises was the same as the same ratio for state industrial and commercial enterprises; and (c) for 1958, on the assumption that income originated in 1958 had the same relationship to income originated in 1957 as the income taxes paid by these enterprises in 1958 had to similar income taxes in 1957. By September 1958 the state-private and cooperative enterprises in this group were turning over their income to the state

C-O-N-F-I-D-E-N-T-I-A-L

treasury in the form of profits remittances. Income originated by private industrial and commercial enterprises in 1959 was very small and is roughly estimated to be 100 million yuan.

Income originated by nonstate handicrafts in 1952 and 1957 was calculated on the assumption that the value added by handicraft production in these years was the same proportion of the gross value of handicraft production as it was in 1956. The Chinese Communist figure for net value of handicraft production in 1956 was adjusted (a) to include depreciation and (b) to exclude indirect taxes. Because of the industrial reorganization and the formation of communes in 1958, organizational control of handicraft activity changed considerably in 1958 and 1959. Of the units engaged in nonstate handicraft production in 1957, some units came under full state control in 1958, some units came under commune control, and some units remained as handicraft cooperatives and independent handicraftsmen. The estimates for 1958 and 1959 of income originated by handicraft activity represent rough estimates of the income originated by units that did not come under state control and therefore did not remit profits to the state treasury. Budget data provide figures for taxes on rural industry and commerce for 1957-59, and it was assumed that income originated in handicraft-type production increased at roughly the same rate as these taxes. The Chinese Communists have reported that 37 percent of the handicraft cooperatives (according to membership) had been transformed into state-owned factories by the end of 1958 5/ and that 37.8 percent had been so converted by May 1959. 6/ The handicraft cooperatives that became state-owned factories probably were transferred to state ownership in the latter half of 1958. It was assumed, therefore, that only one-third of income originated in 1958 by these units went to the state. On the basis of the above information, it was estimated that 88 percent of the income originated by handicraft-type production in 1958 and that 63 percent in 1959 came from nonstate handicraft units.

Income originated by native transportation and handling services has been estimated to be 1,730 million yuan in 1952 and 2,600 million yuan in 1955. 7/ Income originated by native transportation and handling services was assumed to have increased at the same rate as total retail sales of commercial enterprises in 1957 above 1955 and at the same rate as total retail sales in 1958 and in 1959.

Income originated by peddlers has been estimated to be 390 million yuan in 1952 and 400 million yuan in 1955. 8/ The 1957 estimate was derived from the 1955 estimate on the basis of the increase in total retail sales by commercial enterprises. Income originated by peddlers was assumed to have remained in 1958 and 1959 at roughly the level of 1957.

C-O-N-F-I-D-E-N-T-I-A-L

Income originated by farmers in construction activities was estimated to be one-half of total budget expenditures on agricultural construction, including water conservation projects.

(6) Income Taxes of Nonstate Nonagricultural Enterprises

In 1952, income taxes of private enterprises were stated to be about 700 million yuan. Income taxes of state-private and cooperative enterprises were small in magnitude and were roughly estimated to be 100 million yuan. Income taxes were reported to be 1,391 million yuan in January-August 1958, 16.0 percent of total industrial-commercial taxes, and 1,186 million yuan in January-August 1957, 16.1 percent of total industrial-commercial taxes. 9/ Total industrial-commercial taxes were 11.30 billion yuan in 1957, and income taxes for 1957 were estimated to have been 16 percent of total industrial-commercial taxes. Because of the adoption of the new consolidated industrial-commercial tax, income taxes were not collected after about 1 September 1958. After about 1 September 1958, income of state-private enterprises was turned over to the state treasury in the form of profits remittances.

(7) Income (After Taxes) of Nonstate Nonagricultural Enterprises

This entry is the difference between the income of nonstate nonagricultural enterprises and the income taxes paid by these enterprises.

(8) Income of State Enterprises

This item is the sum of dividends paid to former owners of private enterprises and of undistributed income of state enterprises. Income of state enterprises includes income of state-owned enterprises for all years, profits of state-private enterprises remitted to the state treasury in the period 1 January 1957 to 1 September 1958, all income of state-private enterprises after 1 September 1958, and all income of supply and marketing cooperatives in 1958-59.

(9) Dividends to Former Owners of Private Enterprises

A recent Chinese Communist publication 10/ states that payments are made from the state treasury in the amount of 120 million yuan annually to the former owners of private business and industrial enterprises. The first of these annual payments was made in 1956, and the last payment will be made in 1962.

(10) Undistributed (to Persons) Income of State Enterprises

(See e, (7), p. 34, below.)

C-O-N-F-I-D-E-N-T-I-A-L

(11) Rental Income and Personal Service Income

(See b, (18), p. 28, below.)

(12) Indirect Taxes

Indirect taxes were calculated by subtracting agricultural taxes included in the state budget and income taxes of nonstate nonagricultural enterprises from total taxes.

(13) Statistical Discrepancy

This item represents the excess of the estimate of GNP in terms of final product flows over the estimate of GNP in terms of the income generated in its production. The statistical discrepancy arises because of inaccuracies in the estimates of components.

(14) Personal Consumption Expenditures

(See b, (1), below.)

(15) Gross Domestic Investment

(See e, (1), p. 31, below.)

(16) Net Exports of Goods and Services

This item is the difference between exports of goods and services and imports of goods and services.

(17) Exports of Goods and Services

(See d, (1), p. 30, below.)

(18) Imports of Goods and Services

(See d, (2), p. 31, below.)

(19) Government Purchases of Goods and Services

(See c, (1), p. 28, below.)

b. Personal Income and Expenditures Account (Table 2*)

(1) Personal Consumption Expenditures

This item is the sum of farm home consumption-in-kind, retail sales to consumers, wages-in-kind of government employees, agricultural

* Appendix A, p. 8, above.

C-O-N-F-I-D-E-N-T-I-A-L

consumer services and house rent, nonagricultural consumer services, and nonagricultural house rent.

(2) Farm Home Consumption-in-Kind

The estimate of farm home consumption-in-kind consists of the imputed value* of farm products that are produced and consumed on the farm. The estimates for 1952 and 1957 were derived by subtracting from the gross value of agricultural production (a) seed, feed grains, and other intermediate products produced by the agricultural sector and used up in production; (b) sales -- including tax payments in kind -- of grain, hogs, and other farm products to the nonagricultural sector of the economy; and (c) intrasector investment.

Because of the lack of adequate data on the sale of farm products to the nonagricultural sector, the value of farm home consumption-in-kind in 1958-59 was computed by multiplying the value of farm home consumption-in-kind in 1957 by an index of farm home consumption-in-kind of major farm products in 1957-59. The index of farm home consumption-in-kind of major farm products was computed by taking estimates of the physical quantities of grain, cotton, vegetables, meat, and other farm products consumed on the farm in 1957-59 and weighting by the estimated farm sale price for each product. In 1957 the value of farm home consumption-in-kind of these major farm products accounted for almost three-fourths of total farm home consumption-in-kind.

(3) Retail Sales to Consumers

Retail sales of consumer goods to consumers were estimated by subtracting from total retail sales (a) sales of office supplies and other consumer goods to government and business; (b) sales of tools, chemical fertilizers, and other production materials to rural areas; and (c) sales of house repair materials. Total retail sales and sales of rural production materials have been reported by the Chinese Communists. ^{11/} Sales of consumer goods to government and business have been estimated from Chinese statements on retail sales to "social organs." ^{12/} Sales of house repair materials were estimated to be roughly 15 percent of nonagricultural house rent in each year.

(4) Wages-in-Kind of Government Employees

In August 1955 the State Council issued an order on the change-over from the supply system, under which government employees received part of their compensation in grain, cotton cloth, and other consumer goods and

* The imputed value of a product is the value that it would have if it were placed on the market.

C-O-N-F-I-D-E-N-T-I-A-L

part in money, to a complete money wage system. Under this order those government employees who had been receiving part of their wages-in-kind would receive only money wages, beginning in July 1955. It was also mentioned that in 1955 about one-third of the government employees were still under the supply system. 13/ For the purposes of this estimate, it was assumed that all government employees were under the supply system in 1952 and that wages-in-kind in 1952 were roughly equivalent to one-half of total money wages. Total money wages of government employees have been estimated to be 1,340 million yuan in 1952. 14/

(5) Agricultural Consumer Services and House Rent

This entry consists of the imputed value of on-farm consumer services and housing services. Agricultural consumer services and house rent in 1952 have been estimated to be equivalent to 1.4 percent and 5.3 percent, respectively, of agricultural income, not including "peasant" investment and the imputed value of preliminary processing of farm products. 15/ The value of house rent in 1953-59, in 1952 prices, was assumed to have increased at the same rate as total farm housing. 16/ The value of consumer services was assumed to have increased about 1.5 percent per year in 1953-57 and in 1959, roughly the same rate as the increase in the farm population, and to have increased roughly 10 percent in 1958. The value of house rent and consumer services in 1952 prices was converted into current prices on the basis of the index of farm sale prices.

(6) Nonagricultural Consumer Services

This item includes sales of consumer services by the nonagricultural sector of the economy to the agricultural and the nonagricultural population. Sales of consumer services to the agricultural population have been estimated to be equivalent to roughly one-half of the value of on-farm consumer services. 17/ Sales of consumer services to the nonagricultural population have been estimated on the basis of several reports of household budget studies, which indicate the proportion of total expenditures for commodities and for rent, utilities, and other noncommodity items. 18/ From the information in these studies, it was estimated that sales of consumer services to the nonagricultural population were roughly equivalent to 14 percent of total retail sales of consumer goods to the nonagricultural population. Educational and medical fees paid to the government were deducted from the total in order to obtain the estimated value of sales of consumer services by such nonagricultural activities as utilities, barbering, bathhouses, theaters, pedicabs, and funerals.

C-O-N-F-I-D-E-N-T-I-A-L

(7) Nonagricultural House Rent

Total rent was calculated on the basis of rough estimates of the total housing available (in square meters) 19/ and an estimate of the average rent per square meter of private housing. Treated in this manner, total rent includes money rent, imputed rent for self-owned housing, and rental subsidies of all kinds.

The information on rents of private housing is extremely limited, but two Chinese Communist reports suggest that average monthly rent per square meter for private housing was about 0.30 yuan in 1957. 20/ This average rental probably is related to wage earner housing in urban centers, but it is assumed in this report to represent the average monthly rent per square meter for nonagricultural private housing. Total rent, in 1957 prices, was converted into current prices on the basis of the cost-of-living index for workers and salaried employees for 1952-57 and of estimated increases in retail prices for 1958-59.

(8) Personal Tax and Nontax Payments

This item consists of miscellaneous fees received by the government from households for educational, health, and cultural services. Personal taxes and nontax payments are believed to be entered in the state budget account Other Revenue.

(9) Personal Saving

This item was calculated by subtracting from personal income (a) personal consumption expenditures and (b) personal tax and nontax payments. These estimates appear to be reasonable when checked against estimates of increases in personal savings deposits, purchases of domestic bonds, agricultural business savings, and business savings of nonstate nonagricultural enterprises.

(10) Compensation of Employees

This entry includes only the compensation of workers and salaried employees and of military (including supporting) personnel. Compensation of employees in nonstate handicrafts and native transportation and handling services is included under income from nonstate nonagricultural enterprises. Compensation of employees in personal services is included under personal service income.

(11) Compensation of Workers and Salaried Employees

This item includes money wages and salaries, wages and salaries paid in kind, and other labor income received by workers and salaried employees of government organs and of state, state-private, cooperative, and private enterprises.

- 26 -

C-O-N-F-I-D-E-N-T-I-A-L

C-O-N-F-I-D-E-N-T-I-A-L

(12) Wages and Salaries

Total money wages and salaries have been reported by the Chinese Communists for 1952-57 21/ and were claimed to have increased 2.38 billion yuan in 1958. 22/ Total money wages and salaries in 1959 were estimated on the basis of fragmentary data (a) on increases in average money wages and salaries and the number of workers and salaried employees in 1959 and (b) on the planned increase in total and average money wages and salaries and in the number of workers and salaried employees in 1960.

(13) Supplements

This item consists of wages-in-kind of government employees in 1952 and of nonwage and salary expenditures of enterprises and government organs for labor insurance, free medical care, subsidies for medical services, canteens and other welfare services, and other fringe benefits in 1952 and 1957-59. This entry does not include budget expenditures for subsidies to students and for relief, which were treated in this report as government transfer payments. The entries for 1952 and 1957 were estimated from several Chinese Communist reports on wage supplementary expenditures. 23/ Estimates for 1958-59 have been derived from the 1957 estimate on the basis of claimed increases in these expenditures. 24/

(14) Compensation of Military, Including Supporting, Personnel

This item consists of the pay and allowances of military personnel and of supporting civilian personnel, primarily coolie labor.

[redacted] For 1958-59 it was assumed that the number of personnel remained constant and that average pay and allowances increased at the same rate as the average money wage of workers and salaried employees (not including those newly employed in 1958-59). 26/

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(15) Dividends to Former Owners of Private Enterprises

(See a, (9), p. 22, above.)

(16) Agricultural Income (After Taxes)

(See a, (4), p. 20, above.)

(17) Income (After Taxes) from Nonstate Nonagricultural Enterprises

(See a, (7), p. 22, above.)

C-O-N-F-I-D-E-N-T-I-A-L

(18) Rental Income and Personal Service Income

This entry includes income from (a) agricultural consumer services and house rent, (b) nonagricultural personal services, and (c) nonagricultural house rent.

(19) Income from Agricultural Consumer Services and House Rent

This item was assumed to be the same as expenditures for agricultural consumer services and house rent (see b, (5), p. 25, above).

(20) Income from Nonagricultural Personal Services

Personal service income of the nonagricultural population was assumed to be roughly three-fourths of the value of nonagricultural consumer services (see b, (6), p. 25, above). The remaining income from nonagricultural consumer services was paid to the state for urban transportation, electricity, water, and other utilities.

(21) Income from Nonagricultural House Rent

Rental income of the nonagricultural population was calculated by subtracting from total rent (see b, (7), p. 26, above) the cost of house repair materials.

(22) Government Transfer Payments

(See c, (5), p. 29, below.)

(23) Personal Interest Income

(See c, (6), p. 30, below.)

c. Government Receipts and Expenditures Account (Table 3*)

The entries in the Government Account were derived largely from information contained in the annual state budget of Communist China and from other Chinese reports on budget revenue and expenditures.

(1) Purchases of Goods and Services

This item is the sum of budget expenditures for (a) defense; (b) administration; (c) social, cultural, educational, and health expenses; (d) other expenses included in the state budget; and (e) other purchases for defense programs included under the state budget account Expenditures on Economic Construction minus budget expenditures for

* Appendix A, p. 9, above.

C-O-N-F-I-D-E-N-T-I-A-L

student subsidies, relief, and investment in administrative, cultural, educational, and health facilities plus expenses of village administration not included in the state budget.

(2) Military

This entry consists of explicit budget expenditures for defense and rough estimates of other budget expenditures, military in nature, that are believed to be included under other accounts in the state budget. For example, it is believed that (a) other purchases for defense programs are included under the state budget account Expenditures on Economic Construction; (b) scientific research leading to new weapons is included under the state budget account Social, Cultural, Educational, and Health Expenditures; and (c) wages and subsistence of public security troops and construction of border and coastal defenses are included under the state budget account Expenditures on Administration.

(3) Health and Education

This item was calculated by subtracting from the reported budget figures for social, cultural, educational, and health expenditures (a) investment expenditures in this category, (b) estimates of government expenditures for relief and student subsidies, and (c) estimates of scientific research leading to new weapons.

(4) Administration

This item is the residual derived by subtracting from total government purchases of goods and services (a) military purchases and (b) health and education purchases.

(5) Government Transfer Payments

Government transfer payments consist of budget expenditures (a) for subsidies to students; (b) for social relief and special benefits; and (c) in 1959, for government grants of aid to communes and production brigades. Total social relief and special benefits have been given in the budget data for 1952-57. 27/ Social relief and special benefits were assumed to have been roughly two-thirds of the 1957 level in 1958 and to have roughly doubled in 1959 compared with the level of 1958. Subsidies to students in 1952 and 1957 have been estimated on the basis of budget expenditures for culture, education, and health and of the Chinese Communist statement that subsidies to students were 9.3 percent of the total expenditures for culture, education, and health during the period of the First Five Year Plan (1953-57). 28/ Subsidies to students in 1958 were calculated by subtracting total subsidies to students for 1952-58 from total subsidies to students for 1952-57. 29/ Subsidies to students in 1959 were assumed to have been roughly three-fourths

C-O-N-F-I-D-E-N-T-I-A-L

of the level of 1957. Subsidies to students are believed to have been lower in 1958-59 than in 1957 because students were participating in the "leap forward" production drives. Government aid to communes and production brigades was claimed to have totaled 1 billion yuan in 1959.

(6) Interest Paid to Persons

This entry represents government payments for interest on domestic bonds and has been calculated on the basis (a) of scheduled payments of interest and bond redemptions, calculated from the Chinese Communist regulations for these bonds, and (b) of the actual payments from the state budget for domestic debt service -- interest and bond redemptions. 30/

(7) Interest Paid to Foreign Governments

This item covers interest paid by the Chinese Communist Government to the USSR on credits received from the USSR during 1950-57. 31/

(8) Surplus on Income and Product Account

This entry was calculated by subtracting from government receipts (a) government purchases of goods and services, (b) government transfer payments, (c) government interest paid to persons, and (d) government interest paid to foreign governments.

(9) Agricultural Taxes

(See a, (3), p. 19, above.)

(10) Personal Tax and Nontax Receipts

(See b, (8), p. 26, above.)

(11) Income Taxes from Nonstate Nonagricultural Enterprises

(See a, (6), p. 22, above.)

(12) Indirect Taxes

(See a, (12), p. 23, above.)

d. Foreign Transactions Account (Table 4*)

(1) Exports of Goods and Services

This entry consists of (a) exports, which were calculated on the basis of trade data reported by communist China, the USSR, other

* Appendix A, p. 10, above.

C-O-N-F-I-D-E-N-T-I-A-L

C-O-N-F-I-D-E-N-T-I-A-L

Soviet Bloc countries, and non-Bloc countries; (b) remittances from Overseas Chinese, which were calculated on the basis of reports from Hong Kong and other countries of South and Southeast Asia; and (c) production of gold, which, on the basis of prewar figures for production of gold in China, was estimated to be roughly 25 million yuan per year.

(2) Imports of Goods and Services

This entry is the sum of (a) imports, which were calculated from trade data reported by Communist China, the USSR, other Soviet Bloc countries, and non-Bloc countries on an f.o.b. basis, and (b) a rough estimate of the insurance and freight charges associated with these imports, which was calculated as a percentage of the value of imports -- the percentage used depending on the distance of the countries from China, the type of transportation used, and the type of commodities involved.

(3) Interest Paid to Foreign Governments

(See c, (7), p. 30, above.)

(4) Net Foreign Investment

This item was derived by subtracting from total receipts from abroad (a) imports of goods and services and (b) interest paid to foreign governments.

e. Gross Saving and Investment Account (Table 5*)

(1) Gross Domestic Investment

Gross domestic investment is the sum of (a) "peasant" investment, (b) budgeted investment, (c) extrabudgetary investment, and (d) changes in inventories.

(2) "Peasant" Investment

This entry represents total purchases of investment goods by the agricultural sector of the economy. The total of such purchases is composed of (a) purchases of investment goods by the agricultural sector from the nonagricultural sector, through retail trade channels, and (b) purchases of investment goods produced in the countryside by the agricultural sector itself.

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(3) Budgeted Investment

Budgeted investment consists of expenditures from the state budget for (a) investment in capital construction (not including expenditures for construction of barracks, military airfields, and similar

* Appendix A, p. 11, above.

C-O-N-F-I-D-E-N-T-I-A-L

C-O-N-F-I-D-E-N-T-I-A-L

military projects, which were included under government purchases of goods and services); (b) stockpiling of construction materials; (c) state material reserves; and (d) agricultural operating expenses. This entry was calculated from data contained in the annual state budgets and in several articles in Chinese Communist periodicals. 33/

(4) Extrabudgetary Investment

This item consists of investment expenditures by central government ministries, local (provincial and county) governments, and enterprises from funds other than state budget investment funds. These extrabudgetary funds include (a) major repair funds, (b) enterprise bonus funds, (c) the share of above-plan profits not remitted to the state treasury, and (d) funds raised by private and state-private enterprises from their own operations. Expenditures for major repairs in 1952 and 1957 have been estimated [redacted] It is believed that Chinese Communist claims for extrabudgetary investment in 1958-59 include expenditures on major repairs. The estimates of extrabudgetary investment for 1952 and 1957-58 were derived by subtracting the official claims for investment "under the plan" -- that is, investment through the state budget carried out through the annual national capital construction plan -- from the official claims for "total investment," both of which are given in the regime's statistical compendium, Ten Great Years. 35/ The figure for 1959 also is the official Chinese estimate. 36/

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(5) Changes in Inventories

This item consists of changes in inventories in trade and industry and changes in government stocks of tax collections-in-kind. Changes in inventories of construction materials held by construction enterprises are included in budgeted investment. Changes in inventories of transportation enterprises and of the agricultural sector are believed to be small and in this report were assumed to be zero. Changes in inventories in trade were calculated as in Table 10.*

Total inventories and changes in inventories in industry in 1952-57 have been estimated [redacted]. The increase in inventories in industry in 1957 is the official Chinese Communist claim. Since 1957 the Chinese have mentioned only that in 1959 "the stocks of materials and equipment of the industrial departments ... registered a fair increase." Additions to bank credit funds and to working capital from the state budget in 1958 and 1959 were larger than in 1957, and industrial enterprises have been largely dependent on budget allocations and bank credits for increases in their working capital. It was assumed, therefore, that increases in inventories in industry were less than the increase in 1957, or roughly 1 billion yuan each year in 1958-59.

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* Table 10 follows on p. 33.

C-O-N-F-I-D-E-N-T-I-A-L

Table 10

Communist China: Calculation of Changes in Inventories in Trade
Selected Years, 1951-59

	Billion Current Yuan						
Type of Enterprise	1951	1952	1955	1956	1957	1958	1959
State, state-private, and cooperative	5.33	8.82	23.54 <u>a/</u>	20.84 <u>a/</u>	24.67 <u>a/</u>	28.37 <u>a/</u>	35.75 <u>a/</u>
State	4.78 <u>b/</u>	7.15 <u>b/</u>	15.24 <u>c/</u>	12.79 <u>b/</u>			
State-private and cooperative	0.55 <u>d/</u>	1.67 <u>d/</u>	6.53 <u>c/</u>	8.05 <u>d/</u>			
Private	4.77 <u>e/</u>	4.38 <u>e/</u>	$\left\{ \begin{array}{l} 1.77 \text{ c/ } \text{ f/ } \\ 0.43 \text{ c/ } \text{ f/ } \end{array} \right.$	0.43 <u>g/</u>	0.29 <u>h/</u>	0 <u>i/</u>	0 <u>i/</u>
Total inventories	<u>10.10</u>	<u>13.20</u>	<u>23.97</u>	<u>21.27</u>	<u>24.96</u>	<u>28.37</u>	<u>35.75</u>
Changes in inventories		3.10			3.69	3.41	7.38

a. Calculated on the basis of official claims of absolute and percentage increases in inventories of state, state-private, and cooperative enterprises. 38/

b. Calculated on the basis of official claims of annual percentage increases in inventories of state trading enterprises, 1950-56. 39/

c. Inventories of state, state-private and cooperative, and private enterprises in 1955 were assumed to have been in the same proportion to total inventories as trade turnover of these enterprises was to total trade turnover.

d. Assumed to have been in the same proportion to inventories of state enterprises as trade turnover of state-private and cooperative enterprises was to trade turnover of state enterprises.

e. Calculated by multiplying the value of inventories held by private enterprises in 1955 -- 2.20 billion yuan -- by the index of the value of inventories in private trade 40/

f. The figure of 23.54 billion yuan in inventories of state, state-private, and cooperative enterprises in 1955 is believed to include inventories of nearly all commercial enterprises, including larger private commercial enterprises but excluding the small quantity of inventories held by small private commercial units that were socialized in 1956. The small private commercial units handled 1.8 percent of total trade turnover in 1956 and were assumed to have held 1.8 percent of total commercial inventories in 1955.

g. Assumed to have been the same as in 1955.

h. Assumed to have declined at the same rate as retail sales by private trading enterprises. 41/

i. Assumed to have been zero.

C-O-N-F-I-D-E-N-T-I-A-L

C-O-N-F-I-D-E-N-T-I-A-L

Changes in government stocks of tax collections-in-kind occur because the state budget is calculated on a calendar year basis and collections of agricultural taxes are made on a fiscal year basis (1 April to 31 March). These changes are relatively small; official data on tax collections-in-kind and budget revenue from agricultural taxes indicate that increases in government stocks of tax collections-in-kind were about 100 million yuan in 1957. In the absence of similar information in 1952 and 1958-59, it was assumed that government stocks of tax collections-in-kind in those years did not change.

(6) Net Foreign Investment

(See d, (4), p. 31, above.)

(7) Undistributed (to Persons) Income of State Enterprises

This item is the sum of (a) income remitted to the state treasury and (b) major repair funds and other funds retained by central government ministries, local governments, and enterprises.

(8) Remitted to the State Treasury

This item is the official budget figure for profits and depreciation reserves of state enterprises less budget expenditures for dividends to former owners of private enterprises in 1957-59 and for the "four expenses" in 1952 and 1957.*

(9) Retained by Central Government Ministries, Local Governments, and Enterprises

This entry is the sum of major repair funds and other funds.

(10) Major Repair Funds

Major repair funds have been estimated to be equivalent to 3 percent of the total value of industrial fixed assets during 1952-57. 42/ Major repair funds in 1958-59 were assumed to be equivalent to 3 percent of the average annual value of industrial fixed assets of state, state-private, and cooperative enterprises in those years.

* The "four expenses," as they are called by the Chinese Communists, include expenditures for (1) "organization of technical works," (2) trial manufacture of new products, (3) labor protection, and (4) purchase of miscellaneous assets. It is believed that these expenditures should be treated as expenditures on intermediate products. The income remitted to the treasury was therefore reduced by the amount of these expenditures in 1952 and 1957. In 1958-59 the "four expenses" were covered by retained profits.

C-O-N-F-I-D-E-N-T-I-A-L

C-O-N-F-I-D-E-N-T-I-A-L

(11) Other Funds

This entry consists of (a) enterprise bonus funds, net of expenditures for employee welfare, (b) the share of above-plan profits not remitted to the state treasury, and (c) the funds for the "four expenses," net of expenditures for the "four expenses." In 1952 and 1957 the figure for other funds was essentially the share of above-plan profits; the enterprise bonus funds were largely expended for employee welfare, and the "four expenses" were covered by state budget expenditures. The estimates for 1952 and 1957 were made on the basis of the planned share of above-plan profits for 1958, 43/ and the estimates for 1958-59 were calculated by subtracting from reported total retained profits 44/ the following: (a) rough estimates of expenditures from the enterprise bonus funds for employee welfare in 1958-59; (b) the reported expenditures on the "four expenses" in 1958 45/; and (c) a rough estimate of expenditures on the "four expenses" in 1959, which was based on the planned figure for 1959 46/ and the actual increase in total retained profits in 1959.

(12) Government Surplus on Income and Product Account

(See c, (8), p. 30, above.)

(13) Personal Saving

(See b, (9), p. 26, above.)

(14) Statistical Discrepancy

(See a, (13), p. 23, above.)

3. Gross National Product, by Sector of Origin, 1952-60 (Table 6*)

GNP for each year was calculated by summing (a) value added in the various sectors of the economy and (b) indirect taxes. The value added by each sector and the indirect taxes were all expressed in 1957 internal Chinese Communist prices. The estimates of value added by the various sectors of the economy in the years 1952-56 and 1958-60** have been calculated, for the most part, on the basis of indexes of production in each sector, 1952-60, and the value added by the sector in 1957. Estimates of value added by agriculture, industry, and other sectors of the economy in 1957 were derived from the detailed estimates that underlie the figures

* Appendix A, p. 12, above.

** The estimates for 1960, which are preliminary in nature, have followed this same general methodology but were based on the limited amount of information available on actual production in 1960.

C-O-N-F-I-D-E-N-T-I-A-L

for compensation of employees, agricultural income, income of state and nonstate enterprises, rental income, and personal service income presented in Tables 1 through 5.*

The methods used to estimate the value added in the several sectors of the economy in 1952-56 and 1958-60 are discussed below, using the estimate of GNP for 1959 as an example. The contributions of the sectors of the economy to GNP as calculated for 1959 are as follows:

<u>Economic Sector</u>	<u>Billion 1957 Yuan</u>	<u>Percentage Distribution</u>
Agriculture	48.7	37.9
Industry	32.6	25.4
Construction	7.5	5.8
Transportation and communications	12.4	9.6
Trade and miscellaneous business services	13.3	10.4
Personal services and housing services	8.0	6.2
Government services	6.0	4.7
Gross national product (at factor cost)	<u>128.5</u>	<u>100.0</u>
Indirect taxes	16.9	
Gross national product (at market prices)	<u>145.4</u>	

a. Agriculture

In agriculture, value added for 1959 was calculated by subtracting the value of chemical fertilizer, seed and feed grain, and other products used up in production from the gross value of agricultural production, in 1957 prices. (The method used to calculate value added by agriculture is summarized in 2, a, (2), p. 18, above.)

b. Industry

In industry, value added for 1959 was calculated by summing the value added by iron and steel, coal, machine building, food processing, textiles, and other components of industry.**

* Pp. 7 through 11, above.

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C-O-N-F-I-D-E-N-T-I-A-L

Within industry, the value added by production of iron and steel in 1959 was calculated by multiplying value added by production of iron and steel in 1957 by the index of production, 1959 over 1957. This index of production was computed by taking quantity relatives* and weighting by the value added contributed by each product in 1957.

The value added by the other components of industry was calculated by the same method used for iron and steel.

c. Construction

In construction, value added for 1959 was calculated by summing (1) compensation of employees, which was estimated on the basis of fragmentary information on the increase in number of construction workers, 1959 over 1957; (2) profits, which were estimated to be equal in amount to the same percentage of state capital investment as in 1957; and (3) the imputed value of construction activities of farmers, which was estimated to be roughly equivalent to one-half of total budget expenditures on agricultural construction, including water conservation projects.

d. Transportation and Communications

In modern transportation and communications, value added for 1959 was calculated by multiplying value added by this component in 1957 by the index of ton-kilometers hauled by modern transportation in 1959 (1957 equaling 100).

Native transportation and handling services are closely related to domestic trade, and the value added by these services was assumed to have increased at the same rate as sales in domestic trade (deflated for increases in prices).

e. Trade and Miscellaneous Business Services

Value added for 1959 was calculated by summing (a) value added by foreign trade and (b) value added by domestic trade and miscellaneous business services. Value added by foreign trade for 1959 was calculated by multiplying value added by foreign trade in 1957 by the index of total foreign trade in 1959 (total foreign trade in 1957 equaling 100). Value added by domestic trade and miscellaneous business services was calculated by multiplying value added by this component in 1957 by the index of deflated retail sales in 1959 (retail sales in 1957 equaling 100).

* For estimates of production of major industrial products during 1952-60, see Appendix A, Table 9, p. 15, above.

C-O-N-F-I-D-E-N-T-I-A-L

Miscellaneous business services such as insurance and rental of warehouses are closely related to domestic trade, and the value added by these services was assumed to have increased at the same rate as deflated retail sales.

f. Personal Services and Housing Services

Income from personal services and housing services represents (1) money income from rented housing; (2) an imputation of the income from owner-occupied houses; (3) an imputation for rental subsidies; and (4) an estimate of the wages and other income (not paid by the state) received for labor in such activities as barbering, bathhouses, theaters, pedicabs, and funerals. (The method used to estimate income of the agricultural population from personal services and rent, in current prices, has been discussed in 2, b, (19), p. 28, above.) The estimate for 1959 in current prices was converted into 1957 prices on the basis of the index of farm sale prices. Rental income of the nonagricultural population in 1959 was calculated by subtracting from total rent, in 1957 prices (see 2, b, (7), p. 26, above), the cost of house repair materials. (The method used to estimate personal service income of the nonagricultural population in 1959, in current prices, has been discussed in 2, b, (20), p. 28, above.) The estimate for 1959 in current prices was converted into 1957 prices on the basis of the estimated increase in retail prices.

g. Government Services

In government services, value added for 1959 was calculated by multiplying the value added in 1957 -- compensation of employees in the military establishment, in administration, in health and education, and in public organizations (political parties and labor unions) -- by the index of the number of employees in each of these components in 1959 (the number of these employees in 1957 equaling 100). The number of government employees in 1959 was roughly estimated on the basis of fragmentary information.

h. Indirect Taxes

The estimates of indirect taxes for 1952-60, in 1957 prices, were calculated by summing estimates of indirect taxes on trade, heavy industry, and light industry. (The method used to estimate total indirect taxes in 1957 has been discussed in 2, a, (12), p. 23, above.) Indirect taxes on trade in 1957 were calculated by summing retail trade taxes, customs taxes, and miscellaneous taxes. Indirect taxes on industry were derived by subtracting indirect taxes on trade from total indirect taxes. Indirect taxes on industry in 1957 were allocated between taxes on heavy industry and taxes on light industry on the basis of several Chinese Communist reports on profits and taxes collected from heavy and light industry. ^{48/} The estimates of indirect taxes on trade, heavy industry, and

C-O-N-F-I-D-E-N-T-I-A-L

C-O-N-F-I-D-E-N-T-I-A-L

light industry in 1952-56 and 1958-60 were calculated by multiplying indirect taxes on each of these sectors in 1957 by the index of value added by each of these sectors during 1952-60.

4. Special Problems Relating to the Estimates of GNP

a. Prices

The estimates of GNP presented in this report have been compiled in terms of Chinese Communist internal prices, and the output as measured reflects the impact of Chinese price policies and other economic policies. The most important of these policies in terms of the estimates of GNP are as follows: (1) the high valuation of producer goods and the low valuation of consumer goods* compared with the US, (2) the relatively low state purchase prices of agricultural products and the relatively high profits accruing to the state from the resale of these agricultural products, and (3) the heavy commodity taxes placed on industrial goods. Because the Chinese economy is geared to increasing production of producer goods faster than production of consumer goods and services, valuation of Chinese GNP in US prices would show a rate of growth significantly lower than valuation in Chinese prices. In addition, valuation of Chinese GNP in US prices would yield different sector weights from valuation in Chinese prices. Agricultural income would be a higher proportion, and income originated by industry and trade a lower proportion, of GNP at factor cost. The effect on sector weights of the heavy commodity taxes placed on industrial goods has been isolated by inclusion of these taxes in the estimates of indirect taxes. Like the sector weights, the end-use shares of GNP would be different if Chinese GNP were valued in US prices. The share of investment would be lower, and that of consumption and government purchases higher, than the proportions of GNP indicated by valuation in Chinese prices.

b. Handicraft and Household Activity

It is quite likely that the existence of a large and declining element of handicraft and household activity in the Chinese Communist economy has led to some overstatement of the rate of growth of GNP, but it is believed that the overstatement is so small as not to bring into question the main themes of the analysis. The difficulties that arise are not unique to China. They include the problem of identifying and properly treating (1) economic activity that has been transferred from the household to the market place, and (2) petty, hitherto unrecorded

* High internal prices of producer goods relative to prices of consumer goods are in part a reflection of the relative scarcities that existed within China at the time of the establishment of the Communist regime. Since 1952, prices of producer goods have declined relative to prices of consumer goods.

C-O-N-F-I-D-E-N-T-I-A-L

C-O-N-F-I-D-E-N-T-I-A-L

handicraft activity that has been swept together into cooperative groupings under state control and is now more thoroughly recorded in the state figures. Under (1), if a woman who has been washing clothes in the household now washes the village's clothes in a public laundry the GNP figure would rise, but so would the GNP figures of almost any country that is industrializing; the peculiar difficulty in the case of Communist China is that the industrialization, and consequently the distortion, is squeezed together into a few short years. Under (2), estimates of commodity production used in the calculation of value added by industry took into account, to the extent permitted by the information available, the division between handicraft and modern and between state and cooperative production; most of the important increases in industrial production in Communist China have been in areas where the handicraft element was either small or nonexistent -- for instance, in steel,* electric power, petroleum, electrical equipment, machine tools,** and transportation equipment.*** In the case of agricultural production, the estimates for specific crops were based on sown acreage, weather, and level of technology and therefore largely bypass the problem of handicraft activity; where the size of crops -- for instance, vegetables -- depends on the regime's attitude toward private plots, the estimating was more difficult, but all in all the danger of substantial overstatement appears small.

c. Data

In addition to the problems noted above, the estimates of value added by the several sectors of the economy, of the basic income components of GNP, and of the end-use components of GNP suffer in varying degrees from lack of data. Data problems (primarily in relation to agriculture and industry) have been discussed in several studies. ^{49/} The estimates for the other sectors of the economy could be improved considerably with more information on the labor force in these sectors. During the period of the First Five Year Plan (1953-57), labor force data for the state-operated components of the economy were reasonably good, but there was very little information on the number and compensation of persons employed in handicrafts, private trade, native transportation, and personal services. Since 1957, data on the size, distribution, and compensation of the labor force, even in the state-operated components of the economy, have been fragmentary.

* Production of the much-publicized native furnaces in 1958 is specifically excluded from national statistics on production of crude steel.

** Estimates of production used for the index of value added by industry are based on international classification standards.

*** Coal is an exception to this statement, but it is believed that the "native" element is fairly well identified and, in the calculation of the industrial index, adjustment was made for the decline in the quality of coal during 1958-60.

C-O-N-F-I-D-E-N-T-I-A-L

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